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Remarks

Reconsideration of the present application in view of the present amendment and remarks is respectfully requested.

No new matter has been added.

Claims 1,2, 4-7 and 12-24 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,248,220 to White, herein after "White."

Applicant has amended claims 1- 24 and asks that the Examiner reconsider the patentability of the outstanding claims in view of the following remarks.

1. (Amended claim 1+ claim 4)
Claim 2-4 had been dropped.
2. (Amended claim 5)
3. (Amended claim 6)
4. (Amended claim 7)
5. (Amended claim 14)
6. (Amended claim 15)
7. (Amended claim 8)
8. (Amended claim 9)
9. (Amended claim 10)
10. (Amended claim 11)
claims 12-13 dropped
claims 14-15 amended, became current claim 5-6
claim 16 deleted
11. (Amended claim 17+18+22+23)
12. (Amended claim 19)
13. (Amended claim 21)
Claim 22-24 dropped

The present claims, as amended, relate to a flat-folded personal respiratory face mask. Claim 1 describes a flat-folding face mask consists of two portions, folded along a **vertical edge connecting the nose bridge and the chin**, with an elastic headband or ear loop (herein after "elastic band.") that attaches to the **center portion of the folding edge** and leaving the **peripheral portion of the face mask free from any tension** of the elastic band (emphasis added).

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The elastic band applies a force (F) at the center portion of the folding edge, and the force is distributed through the mask body and directed towards the area surrounding the nose bridge and **provides a good seal around the nose bridge without requiring a nose clip** (Paragraph 0063). Unlike White's face mask, there is no tensional force applied directly on any part of the peripheral.

Therefore the present invention allows the peripheral portion of the face mask, which is in contact with the face, to have more freedom of movement and more adaptive to air pressure change, allowing for a better seal around facial features during inhalation. Another important aspect of the invention of claim 1 is that the seal formed during inhalation is released during exhalation due to the rise in pressure within the face mask and the flexibility of its periphery, which can shift to allow the air to escape. This facilitates fast removal of the expired air from the face mask.

The present invention as described in claim 1 is not taught by White. White teaches a face mask consists of two parts folding along a **horizontal** common edge (emphasis added). White's face mask is held on the face by a head band attached to the extreme end of the horizontal folding edge, which is also **close to the peripheral edge** of the face mask (figs. 1-3) (emphasis added). Any tension force from the headband is applied to the peripheral edge directly and therefore restricting the movement of the edge.

adjacent the edge 4." (Col. 4, lines 15-20 and Figs. 14 and 15). This limits the flexibility of the periphery of the face piece, therefore restricting the face piece from releasing its seal upon exhalation. Hilton is silent on the idea of the seal intentionally releasing during exhalation, a key aspect of the present invention. Claims 2-7 are dependent on claim 1 and are patentable under S/N: 10/553,133 Atty Dkt No. CHU0101PUSA

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35 U.S.C. § 102(b) for at least the same reasons as claim 1.

Claim 8 describes a process for making the flat-folded personal respiratory face mask of claim 1. It involves three steps: the first being folding of a sheet material along its length, the second step being welding along a pre-defined edge, and the third being cutting the shape of the face mask out of the roll.

As described above, Hilton does not teach the invention of claim 1. In addition, the process described for making the face piece described in Hilton does not teach the process for making the present invention of claim 1 as described in claim 8. Hilton describes a process where blanks are first created by cutting them from a sheet material, then welds are made in the blanks, then the blanks are folded and welded again, followed by several additional folds. (Col.

4, lines 44-68 and Col. 5, lines 1-29). This process does not teach the correct series of steps, both operations and order, to create the face mask of claim 1 as described by claim 8 and is also substantially more complicated. Claim 9 is dependent on claim 8 and is patentable under 35 U.S.C. § 102(b) for at least the same reasons as claim 8.

Claim 10 describes a process for making the flat-folded personal respiratory face mask of claim 1. It comprises folding a flat sheet of material, welding the folded sheet along a pre-defined edge, and cutting the shape of the flat-folded face mask out of the sheet.

As described above, Hilton does not teach the invention of claim 1. In addition, the process described in Hilton does not teach the process of claim 10. Claim 10 specifically describes cutting the shape of the face mask in the flat-folded configuration (emphasis added). This differs from Hilton, where blanks of the unfolded face piece were first cut and then later folded and welded. Claim 11 is dependent on claim 10 and is patentable under 35 U.S.C. § 102(b) for at least the same reasons as claim 10.

Claim 12 describes a flat-folded respiratory face mask. It states, in part, "means for securing the mask body against the wearer's face, imposing a force (F), along said common edge, substantially away from the periphery of the mask body and at an elevation corresponding

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to the space between the nose and mouth, and directed toward the face of the wearer; wherein the peripheral portions of the mask body are more flexible to accommodate the face shape and provide a respiratory seal with positive pressure applied from the outside during inhalation, while allowing exhaled air to pass easily through the peripheral flexible portions" (emphasis added).

As described above, Hilton teaches securing the face piece adjacent the edge, which would not impose a force along the common edge and away from the periphery. Hilton is silent on allowing exhaled air to pass easily through the peripheral flexible portions. Claims 13-16 are dependent on claim 12 and are patentable under 35 U.S.C. § 102(b) for at least the same reasons as claim 12.

Claim 17 is similar to claim 12, except that it describes a face mask body made from a non-permeable material and a filtering means that includes a filter insert. Hilton does not teach the invention of claim 17 for at least the same reasons as listed above for claim 12. In addition, Hilton is silent on making the mask body of a non-permeable material and using a filter insert. Claims 18-24 are dependent on claim 17 and are patentable under 35 U.S.C. § 102(b) for at least the same reasons as claim 17.

Accordingly, Applicant respectfully submits that claims 1, 2, and 4-24 are not anticipated by Hilton and requests the withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1, 2, and 4-24.

Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilton. As described above, the invention of claim 1 is not taught by Hilton due to significant differences in the securing means and mask periphery.

Accordingly, Applicant respectfully submits that claim 3 is not unpatentable over Hilton and requests withdrawal of the 35 U.S.C. § 103(a) rejection of claim 3.

Reconsideration and reexamination of the application is respectfully requested.

Applicant has made a genuine effort to respond to each of the Examiner's objections and rejections in advancing the prosecution of this case. Applicant believes that all formal and
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substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested. If any additional issues need to be resolved, the Examiner is requested to telephone the undersigned at his convenience.

The Commissioner is hereby authorized to charge any fees or credit any overpayments as a result of the filing of this paper to Deposit Account No. 02-3978.

Respectfully submitted,

WA CHU

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